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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,738	12/16/2004	David M Avery	GB02 0098 US	1318
24738 7590 05/23/2007 PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 1109 MCKAY DRIVE, M/S-41SJ SAN JOSE, CA 95131			EXAMINER AMINZAY, SHAIMA Q	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 05/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,738

Applicant(s)

AVERY ET AL.

Examiner

Shaima Q. Aminzay

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to applicant's amendment/remarks filed April 16, 2007.

Response to Arguments

1. Response to arguments with respect to objected claims 1-14 is moot, as the amendment to the claims meet the requirements, therefor, Claims Objections with respect to claims 1-14 withdrawn.
2. Response to arguments with respect to rejected claims 1-14 is moot, as the applicant's arguments partially convincing, therefor, Claim Rejections - 35 U.S.C.102(e) with respect to claims 1, 7, 12, and Claim Rejections - 35 U.S.C.103(a) with respect to claims 2-6, 8-11, and 13-14 withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7-10, 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishida (Ishida et al., U. S. Patent 6,055,411), in view of).

Regarding claim 1, Ishida discloses a method for extending the radio coverage area of a communication system operating according to a predetermined radio protocol (*Figures 1-6, column 1, lines 6-18, lines 55-65, column 2, lines 49-58, column 5, lines 61-63, column 8, lines 30-32, column 9, lines 10-13, the area of radio communication is being increased with respect of predetermined radio communication information including protocol*),

the system comprising a primary station having a radio coverage area (*for example, Figures 1 and 5, column 1, lines 55-65, column 2, lines 49-58, column 5, lines 61-63, column 8, lines 8-11, the primary station (Figure 1(CS2) or Figure 5(CS1)) with it's coverage area*),

a first secondary station within the coverage area and a further secondary station which is located outside of the radio coverage area of the primary station (*for example, Figures 1,*

5, column 1, lines 55-65, column 2, lines 49-58, column 5, lines 61-63, column 8, lines 8-25, the second station (Fig. 1(CS1) or Fig. 5 (CS2)) within the coverage area of the primary station (Figure 1(CS2) or Figure 5(CS1)) and the other station (further secondary) outside the coverage area (211)),

the method comprising a message exchange process (for example, Figures 2-4, 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, message exchanging process) in which:

the first secondary station receives from the primary station messages intended for the further secondary station (for example, Figures 1-6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) receives message from the station primary station (Fig. 1 (CS2), Fig. 5 (CS1)) for the other (further) station (Fig. 1 (101) or Fig. 5 (211)));

and transmits said messages to the further secondary station (Figures 1-6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) transmits message data to the other (further) station (Fig. 1 (101) or Fig. 5 (211)));

and the first secondary station receives from the further secondary station messages intended for the primary station (for example, Figures 1- 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) receives data messages from the other (further) station (Fig. 1 (101) or Fig. 5 (211))for the primary station (Fig. 1 (CS2), Fig. 5 (CS1)));

and transmits said messages to the primary station (*for example, Figures 2-4, 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) transmits data messages to the primary station (Fig. 1 (CS2), Fig. 5 (CS1))*)).

Regarding claim 7, Ishida discloses communication system operating according to a predetermined radio protocol (*Figures 1-6, column 1, lines 6-18, lines 55-65, column 2, lines 49-58, column 5, lines 61-63, column 8, lines 30-32, column 9, lines 10-13, the communication system operates with respect to the radio communication protocol*) and comprising a primary station having a radio coverage area (*for example, Figures 1 and 5, column 8, lines 8-11, the primary station (Figure 1(CS2) or Figure 5(CS1)) with it's coverage area*),

a first secondary station within the coverage area and a further secondary station which is located outside of the radio coverage area of the primary station (*for example, Figure 5, column 8, lines 8-25, the second station (Fig. 1(CS1) or Fig. 5 (CS2)) within the coverage area of the primary station (Figure 1(CS2) or Figure 5(CS1)) and the other station (211) that is further secondary station outside the coverage area of the primary station (Figure 1(CS2) or Figure 5(CS1))*),

the first secondary station having means for receiving from the primary station messages intended for the further secondary station (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) receives message from the station*

primary (Figure 1(CS2) or Figure 5(CS1)) for the other (further) station (Fig. 1 (101) or Fig. 5 (211))),

for transmitting said messages to the further secondary station (Figures 2-4, 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) transmits message data to the other (further) station (Fig. 1 (101) or Fig. 5 (211))),

for receiving from the further secondary station messages intended for the primary station (for example, Figures 2-4, 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) receives data messages from the other (further) station (Fig. 1 (101) or Fig. 5 (211)) for the primary station (Figure 1(CS2) or Figure 5(CS1))) and for transmitting said messages to the primary station (for example, Figures 2-4, 6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) transmits data messages to the primary station (Figure 1(CS2) or Figure 5(CS1))).

Regarding claim 12, Ishida discloses first secondary station for use in a communication system operating according to a predetermined radio protocol and having a primary station having a radio coverage area (Figures 1-6, column 1, lines 6-18, lines 55-65, column 2, lines 16-32, lines 49-58, column 5, lines 61-63, column 8, lines 8-25, lines 30-32, column 9, lines 10-13, the secondary station (Fig. 1 (CS1) or Fig. 5 (CS2)) having predetermined radio (RF) protocol with the primary station (Fig. 1 (CS2) or Fig. 5

(CS1)) with the RF coverage),

and a further secondary station which is located outside of the radio coverage area of the primary station (*Figures 1-6, column 1, lines 6-18, lines 55-65, column 2, lines 16-32, lines 49-58, column 5, lines 61-63, column 8, lines 8-25, lines 30-32, column 9, lines 10-13, and the other station (Fig. 1 (101) or Fig. 5 (211)) that is further secondary station outside the coverage area of the primary station (Fig. 1 (CS2) or Fig. 5 (CS1)),* the first secondary station being located within the radio coverage area of the primary station and comprising means for receiving from the primary station messages intended for the further secondary station, for transmitting said messages to the further secondary station (*Figures 1-6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) transmits message data to the other (further) station (Fig. 1 (101) or Fig. 5 (211))),* for receiving from the further secondary station messages intended for the primary station and for transmitting said messages to the primary station (*Figures 1-6, column 1, lines 55-65, column 2, lines 16-32, column 6, lines 24-28, line 49, column 7, lines 50-65, and the secondary station (Fig. 1(CS1) or Fig. 5 (CS2)) receives message data for the other (further) station (Fig. 1 (101) or Fig. 5 (211))).*

Regarding claim 2, Ishida teaches all the limitations of claim 1, and further, Ishida teaches wherein the message exchange process follows a registration process in which: the further secondary station transmits to the first secondary station a message comprising registration information (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines*

16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, the message exchange process of primary station (Fig. 1 (CS2), secondary station (Fig. 1 (CS1)), and other (further) station (101) and registrations),

and the first secondary station transmits said registration information to the primary station to register the further secondary station with the primary station *(for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, the message exchange process of primary station (Fig. 1 (CS2), secondary station (Fig. 1 (CS1)), and other (further) station (101) and registrations).*

Regarding claim 3, Ishida teaches all the limitations of claim 2, and further, Ishida teaches wherein the registration information comprises a unique identifier identifying the further secondary station *(for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, column 6, lines 1-7),* and wherein: the primary station registers the further secondary station by allocating a first identifier associated with the unique identifier of that station and transmits said first identifier to the first secondary station *(for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, column 6, lines 1-7),*

and wherein the first secondary station allocates a second identifier associated with the first identifier and with the unique identifier and transmits the second identifier to the further secondary station, and wherein messages are subsequently exchanged according to the associated identifiers *(for example, Figures 1-4, column 1, lines 55-65, column 2,*

lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, column 6, lines 1-7).

Regarding claims 4, and 9, Ishida teaches all the limitations of claims 3, 7, and further, Ishida teaches wherein communication between the primary station and the first secondary station is synchronised according to a first periodic beacon signal transmitted by said primary station (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, lines 17-39, column 6, lines 1-7).*

Regarding claims 5, and 10, Ishida teaches all the limitations of claims 4, 9, and further, Ishida teaches wherein the first secondary station reserves a portion of the time period between the periodic beacon signals, and wherein the first secondary station transmits and receives messages to and from the further secondary station during this reserved time period (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, lines 17-39, column 6, lines 1-7).*

Regarding claims 8, and 13, Ishida teaches all the limitations of claims 7, 12, and further, Ishida teaches wherein the first secondary station further comprises means for receiving a message comprising registration information from the further secondary station (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, column 6, lines 1-7)* and means for

transmitting said registration information to the primary station to register the further secondary station with the primary station (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, column 6, lines 1-7*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action.

(a) Patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida (Ishida et al., U. S. Patent 6,055,411), in view of Olson (Olson et al., U.S. Patent 6,830,340).

Regarding claims 5, 11, and 14, Ishida teaches all the limitations of claim 1, 7, 12, and further, Ishida teaches wherein the predetermined radio protocol is that defined as the *[ZigBee]* radio standard (*for example, Figures 1-4, column 1, lines 55-65, column 2, lines 16-28, lines 49-58, column 3, lines 8-10, column 5, lines 4-10, lines 17-39, column 6, lines 1-7, column 8, lines 30-32, the defined radio protocol is predetermined*). However,

Ishida does not specifically teach the ZigBee standard.

In related art, Olson teaches the ZigBee radio standard (*see for example, column 2, lines 7-8, column 1, lines 45-54, column 2, lines 7-16, column 3, lines 55-67, column 5, lines 30-33, lines 66-67, column 6, lines 1-19, column 8, lines 28-38*).

It would have been obvious to one of ordinary skill in the art at the time invention was made to include Olson's ZigBee standard with Ishida's radio communication system to provide a communication system with extended coverage area and increased interface capabilities for different data transmission of mobile wireless networks (Olson, *see for example, column 3, lines 55-67*).

Conclusion

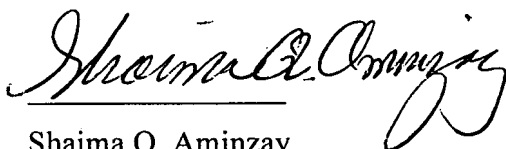
The prior art made of record considered pertinent to applicant's disclosure, see PTO-892 form.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 571-272-7874. The examiner can normally be reached on 7:00 AM -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew D. Anderson can be reached on 571-272-4177. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shaima Q. Aminzay
(Examiner)

May 19, 2007



Matthew D. Anderson
Supervisory Patent Examiner